

**1. A method comprising:**

- (a) receiving a desired time-of-arrival; and
- (b) selecting one of a plurality of entries of a timetable based on:

- (i) the current time,
- (ii) said desired time-of-arrival, and
- (iii) a non-negative penalty function;

wherein each of said entries comprises:

- (i) a scheduled time-of-departure, and
- (ii) a value that indicates a scheduled time-of-arrival; and

wherein said penalty function is:

- (i) monotonically increasing in travel time, wherein said travel time equals the difference between an actual time-of-arrival and an actual time-of-departure,
- (ii) monotonically increasing in  $\Delta = (\text{said actual time-of-arrival} - \text{said desired time-of-arrival})$  over at least one interval  $(\Delta_1, \Delta_2)$  of  $\Delta$  wherein  $\Delta_2 > \Delta_1 \geq 0$ , and
- (iii) monotonically decreasing in  $\Delta$  over at least one interval  $(\Delta_3, \Delta_4)$  of  $\Delta$  wherein  $\Delta_3 < \Delta_4 \leq 0$ .

**2. The method of claim 1 wherein each of said entries also comprises:**

- (iii) a first metric for said scheduled time-of-departure, and
- (iv) a second metric for said scheduled time-of-arrival; and

wherein said penalty function is based on said first metric and on said second metric.

**3. The method of claim 2 wherein each of said first metric and said second metric is selected from the group consisting of: a mean value; a minimum value; a maximum value; a variance; an  $n$ th-order moment, wherein  $n$  is an integer greater than 2; and a probability distribution.**

**4. The method of claim 1 wherein said timetable is associated with a departure location, said method further comprising:**

- (c) receiving a current location;
- (d) estimating a metric of travel time from said current location to said departure location; and
- (e) determining whether to output a signal based on:

- (i) said current time,
- (ii) the scheduled time-of-departure of the entry selected at (b), and
- (iii) said metric estimated at (d).

**5.** The method of claim 4 wherein said metric estimated at (d) is selected from the group consisting of: a mean value; a minimum value; a maximum value; a variance; an  $n$ th-order moment, wherein  $n$  is an integer greater than 2; and a probability distribution.

**6.** A method comprising:

- (a) receiving a desired time-of-arrival associated with a destination location; and
- (b) selecting one of a plurality of entries of a timetable, wherein said timetable is associated with a discharge location, based on:
  - (i) the current time,
  - (ii) said desired time-of-arrival,
  - (iii) a first metric of estimated travel time from said discharge location to said destination location, and
  - (iv) a non-negative penalty function;

wherein each of said entries comprises:

- (i) a scheduled time-of-departure, and
- (ii) a value that indicates a scheduled time-of-arrival; and

wherein said penalty function is:

- (i) monotonically increasing in travel time, wherein said travel time equals the difference between an actual time-of-arrival at said destination location and an actual time-of-departure,
- (ii) monotonically increasing in  $\Delta = (\text{said actual time-of-arrival at said destination location} - \text{said desired time-of-arrival at said destination location})$  over at least one interval  $(\Delta_1, \Delta_2)$  of  $\Delta$  wherein  $\Delta_2 > \Delta_1 \geq 0$ , and
- (iii) monotonically decreasing in  $\Delta$  over at least one interval  $(\Delta_3, \Delta_4)$  of  $\Delta$  wherein  $\Delta_3 < \Delta_4 \leq 0$ .

**7.** The method of claim 6 wherein each of said entries also comprises:

- (iii) a second metric for said scheduled time-of-departure, and
- (iv) a third metric for said scheduled time-of-arrival; and

wherein said penalty function is based on said second metric and on said third metric.

**8.** The method of claim 7 wherein each of said second metric and said third metric is selected from the group consisting of: a mean value; a minimum value; a maximum value; a variance; an  $n$ th-order moment, wherein  $n$  is an integer greater than 2; and a probability distribution.

**9.** The method of claim 6 wherein said timetable is associated with a departure location, said method further comprising:

- (c) receiving a current location;
- (d) estimating a second metric of travel time from said current location to said departure location; and
- (e) determining whether to output a signal based on:
  - (i) said current time,
  - (ii) the scheduled time-of-departure of the entry selected at (b), and
  - (iii) said second metric.

**10.** The method of claim 9 wherein said second metric is selected from the group consisting of: a mean value; a minimum value; a maximum value; a variance; an  $n$ th-order moment, wherein  $n$  is an integer greater than 2; and a probability distribution.

**11.** A method comprising:

(a) receiving a desired time-of-arrival associated with a destination location; and  
(b) selecting one of a plurality of entries of a first timetable and one of a plurality of entries of a second timetable, wherein said first timetable is associated with a first discharge location, and wherein said second timetable is associated with a second departure location and a second discharge location, and wherein said selecting is based on:

- (i) the current time,
- (ii) said desired time-of-arrival,
- (iii) a first metric of estimated travel time from said first discharge location to said second departure location,
- (iv) a second metric of estimated travel time from said second discharge location to said destination location, and
- (v) a non-negative penalty function;

wherein each of said entries of said first timetable and of said second timetable comprises:

- (i) a scheduled time-of-departure, and

(ii) a value that indicates a scheduled time-of-arrival; and  
wherein said penalty function is:

(i) monotonically increasing in travel time, wherein said travel time equals the difference between an actual time-of-arrival at said destination location and an actual time-of-departure,

(ii) monotonically increasing in  $\Delta$  = (said actual time-of-arrival at said destination location minus said desired time-of-arrival at said destination location) over at least one interval  $(\Delta_1, \Delta_2)$  of  $\Delta$  wherein  $\Delta_2 > \Delta_1 \geq 0$ , and

(iii) monotonically decreasing in  $\Delta$  over at least one interval  $(\Delta_3, \Delta_4)$  of  $\Delta$  wherein  $\Delta_3 < \Delta_4 \leq 0$ .

**12.** The method of claim 11 wherein each of said entries of said first timetable and of said second timetable also comprises:

(iii) a third metric for said scheduled time-of-departure, and

(iv) a fourth metric for said scheduled time-of-arrival; and

wherein said penalty function is based on said third metric and said fourth metric.

**13.** The method of claim 12 wherein each of said third metric and said fourth metric is selected from the group consisting of: a mean value; a minimum value; a maximum value; a variance; an  $n$ th-order moment, wherein  $n$  is an integer greater than 2; and a probability distribution.

**14.** The method of claim 11 wherein said first timetable is also associated with a first departure location, said method further comprising:

(c) receiving a current location;

(d) estimating a third metric of travel time from said current location to said first departure location; and

(e) determining whether to output a signal based on:

(i) said current time,

(ii) the scheduled time-of-departure of the entry of said first timetable selected at (b), and

(iii) said third metric.

**15.** The method of claim 14 wherein said second metric is selected from the group consisting of: a mean value; a minimum value; a maximum value; a variance; an  $n$ th-order moment, wherein  $n$  is an integer greater than 2; and a probability distribution.

**16.** An apparatus comprising:

a receiver for receiving a desired time-of-arrival; and

a processor for selecting one of a plurality of entries of a timetable based on:

- (i) the current time,
- (ii) said desired time-of-arrival, and
- (iii) a non-negative penalty function;

wherein each of said entries comprises:

- (i) a scheduled time-of-departure, and
- (ii) a value that indicates a scheduled time-of-arrival; and

wherein said penalty function is:

- (i) monotonically increasing in travel time, wherein said travel time equals the difference between an actual time-of-arrival and an actual time-of-departure,
- (ii) monotonically increasing in  $\Delta$  = (said actual time-of-arrival minus said desired time-of-arrival) over at least one interval  $(\Delta_1, \Delta_2)$  of  $\Delta$  wherein  $\Delta_2 > \Delta_1 \geq 0$ , and
- (iii) monotonically decreasing in  $\Delta$  over at least one interval  $(\Delta_3, \Delta_4)$  of  $\Delta$  wherein  $\Delta_3 < \Delta_4 \leq 0$ .

**17.** The apparatus of claim 16 wherein each of said entries also comprises:

- (iii) a first metric for said scheduled time-of-departure, and
- (iv) a second metric for said scheduled time-of-arrival; and

wherein said penalty function is based on said first metric and on said second metric.

**18.** The apparatus of claim 16 wherein said timetable is associated with a departure location, and wherein said receiver is also for receiving a current location, and wherein said processor is also for:

estimating a metric of travel time from said current location to said departure location; and

determining whether to output a signal based on:

- (i) said current time,
- (ii) the scheduled time-of-departure of the entry selected, and
- (iii) said metric.

**19.** An apparatus comprising:

a receiver for receiving a desired time-of-arrival associated with a destination location; and

a processor for selecting one of a plurality of entries of a timetable, wherein said timetable is associated with a discharge location, based on:

- (i) the current time,
- (ii) said desired time-of-arrival,
- (iii) a first metric of estimated travel time from said discharge location to said destination location, and
- (iv) a non-negative penalty function;

wherein each of said entries comprises:

- (i) a scheduled time-of-departure, and
- (ii) a value that indicates a scheduled time-of-arrival; and

wherein said penalty function is:

(i) monotonically increasing in travel time, wherein said travel time equals the difference between an actual time-of-arrival at said destination location and an actual time-of-departure,

(ii) monotonically increasing in  $\Delta$  = (said actual time-of-arrival at said destination location minus said desired time-of-arrival at said destination location) over at least one interval  $(\Delta_1, \Delta_2)$  of  $\Delta$  wherein  $\Delta_2 > \Delta_1 \geq 0$ , and

(iii) monotonically decreasing in  $\Delta$  over at least one interval  $(\Delta_3, \Delta_4)$  of  $\Delta$  wherein  $\Delta_3 < \Delta_4 \leq 0$ .

**20.** The apparatus of claim 19 wherein each of said entries also comprises:

- (iii) a second metric for said scheduled time-of-departure, and
- (iv) a third metric for said scheduled time-of-arrival; and

wherein said penalty function is based on said second metric and on said third metric.